sample is small, the propensity of low thiamine in female patients is intriguing and merits follow up.

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Effect of Protein Sufficiency Rate on Hospital Length of Stay in Allogeneic HSCT Recipients

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Background: Patients can develop poor appetite, mucositis and gastrointestinal failure leading to malnutrition after hematopoietic stem cells transplant (HSCT). It has been reported that the sufficient nutrition strategies are related to decrease of infectious disease or acute GVHD. Therefore, the nutritional management throughout all transplant period is important. In general, two-fold higher protein than basic level is required for tissue repair as well as for preventing collapse of the fat free mass in patients. Based on this, 1.5g/kg·BW of protein are recommended in adult patients with cancer on *The Clinical Guide to Oncology Nutrition*.
However, there are only few previous reports about HSCT patients especially in Japan. In this study, we studied the protein sufficiency rate and the heat capacity / nitrogen ratio (non-protein calorie/nitrogen: NPC/N) as outcomes of nutritional management and analyzed the relationship between these factors and hospital length of stay.
Methods: This study enrolled 16 adult patients who received HSCT at Okayama University Hospital from Jun.2016 to Jan. 2017 and discharged before day 100 after transplant. We retrospectively collected data for percentage of body weight loss (%LBW), protein sufficiency rate, NPC/N, and blood chemistry data about nutritional status. Also, we compared these parameters between two groups that are defined by duration from start of preparative regimen to discharge. Group 1 (short-term group) includes patients with less than 50 days of stay and Group 2 (long-term group) includes patients with 50 days or more of stay.
Results: A tendency of the negative correlation between a protein sufficiency rate and hospitalization days was seen ($rs = .45$ $P = .1$). Also, duration of hospitalization was positively correlated to NPC/N ($rs = .924$ $P = .01$). In comparison of two groups (group 1 vs group 2), tendency of lower BW loss rate (–4.31% vs –5.37%), lower NPC/N (130.7 vs 157.3) and higher protein sufficiency (99.9% vs 94.0%) were found in short-term group, which were not statistically significant.
Conclusion: Sufficient energy supply from protein might decrease hospital length of stay. Further analysis including more cases is ongoing.

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Elderly Patients Undergone Hematopoietic Stem Cell Transplantation: Body Composition and Engraftment

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Background: Hematopoietic Stem Cell Transplantation (HSCT) in elderly is a brand-new issue. Changes in body composition after HSCT have been the subject of previous studies, however there aren't many studies in elderly people.
Objectives: To evaluate muscle thickness and visceral fat by US; % muscle mass, % fat mass and phase angle by BIA. To correlate body composition with engraftment(EN).
Methods: In this prospective study, we evaluated 16 HSCT patients (≥60years) at Hospital Israelita Albert Einstein, São Paulo, Brazil, on their first day of hospitalization, before HSCT and after the EN. The thickness of the right femoral quadriceps muscle (RFQ), measured at 6 cm from the top edge of the patella was measured using ultrasound (US) in B-mode, transversal plane. The visceral fat(VF) was measured in the abdominal region, by the thickness of the fat layer between the linea alba and the anterior wall of the aorta. The % muscle mass (MM), % fat mass(FM) and phase angle(PA) were evaluated by Bioimpedanciometry(BIA).
Results: Most patients were men (75%) with a mean age of 64(±5,0 years). We had 50% of autologous HSCT and 50% allogenic HSCT. The mean time EN was 13(±4 days). In the baseline, weight was 80(±17 kg), RFQ was 1.8(±.3 cm) and the VF was 5,5(±2,0 cm); %MM was 68,5(±11); %FM was 27,5(±7,5); PA was 5,3((±0,7). After EN, weight was 73(±13 kg). RFQ was 1.5(±.3 cm) and the VF was 5,0(±2.2 cm); %MM was 55,5(±20,5); %FM was 25(±7,0); PA was 7,4(±0,8). There wasn't significant difference between baseline and after engraftment, although all measurements had reduced in all patients, exception for PA and VF had increased. We found the negative correlation between engraftment and RFQ (rp: –0,6), independently of HSCT type by regression. (r_p: –0,6).
Conclusion: In this cohort of patients, muscle thickness and mass was reduced, and visceral fat and phase angle was increased after engraftment. The higher muscle thickness correlated faster engraftment.

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Influence of Zinc Deficiency and Severe Mucositis in Patients Undergoing Hematopoietic Stem Cell Transplatation

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Background: Mucositis is a complication find in patients undergoing Hematopoietic Stem Cell Transplantation(HSCT). It results in painful debilitating inflammation, vomiting, diarrhea, sleep disturbances, anorexia, weight loss and a decrease in quality of life. Several studies have demonstrated zinc serum levels could associate to mucositis and its degree.
Objective: The aim of this study was to correlate zinc deficiency with mucositis and/or mucositis degree.
Methods: It was a retrospective study, based on medical records and approved by the institutional ethics committee. We evaluated 117 patients (≥18 years-old) undergoing HCST, who had zinc serum level evaluated until 5 first days